

Fig. 1

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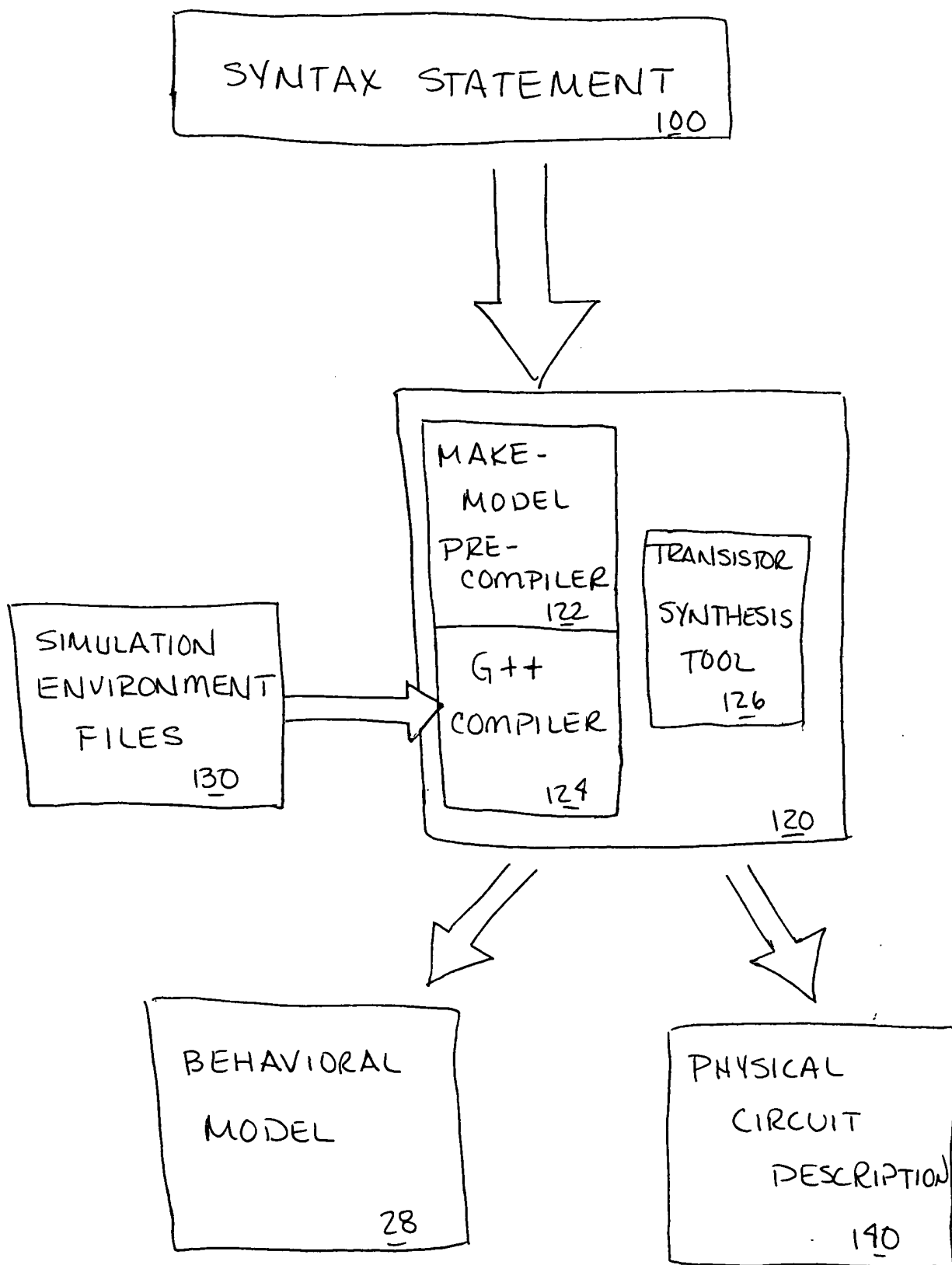
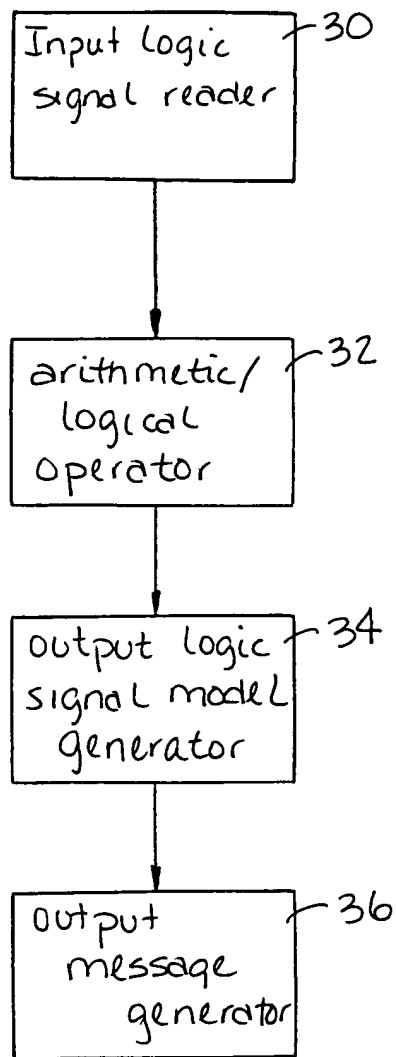
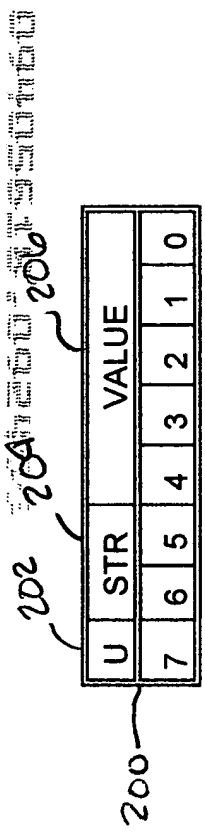


FIG. 2



28

FIG. 3



STR	CORRESPONDS TO
1 1	Z - high impedance
1 0	R - weakly-driven
0 1	moderately-driven
0 0	strongly-driven

VALUE	CORRESPONDS TO	VALUE	CORRESPONDS TO
0 0 0 0 0	N-nary signal value = 0	1 0 0 0 0	N-nary signal value = 16
0 0 0 0 1	N-nary signal value = 1	1 0 0 0 1	N-nary signal value = 17
0 0 0 1 0	N-nary signal value = 2	1 0 0 1 0	N-nary signal value = 18
0 0 0 1 1	N-nary signal value = 3	1 0 0 1 1	N-nary signal value = 19
0 0 1 0 0	N-nary signal value = 4	1 0 1 0 0	N-nary signal value = 20
0 0 1 0 1	N-nary signal value = 5	1 0 1 0 1	N-nary signal value = 21
0 0 1 1 0	N-nary signal value = 6	1 0 1 1 0	N-nary signal value = 22
0 0 1 1 1	N-nary signal value = 7	1 0 1 1 1	N-nary signal value = 23
0 1 0 0 0	N-nary signal value = 8	1 1 0 0 0	N-nary signal value = 24
0 1 0 0 1	N-nary signal value = 9	1 1 0 0 1	N-nary signal value = 25
0 1 0 1 0	N-nary signal value = 10	1 1 0 1 0	N-nary signal value = 26
0 1 0 1 1	N-nary signal value = 11	1 1 0 1 1	N-nary signal value = 27
0 1 1 0 0	N-nary signal value = 12	1 1 1 0 0	N-nary signal value = 28
0 1 1 0 1	N-nary signal value = 13	1 1 1 0 1	N-nary signal value = 29
0 1 1 1 0	N-nary signal value = 14	1 1 1 1 0	N-nary signal value = 30
0 1 1 1 1	N-nary signal value = 15	1 1 1 1 1	N-nary signal value = 31

FIG. 4

00000-000000

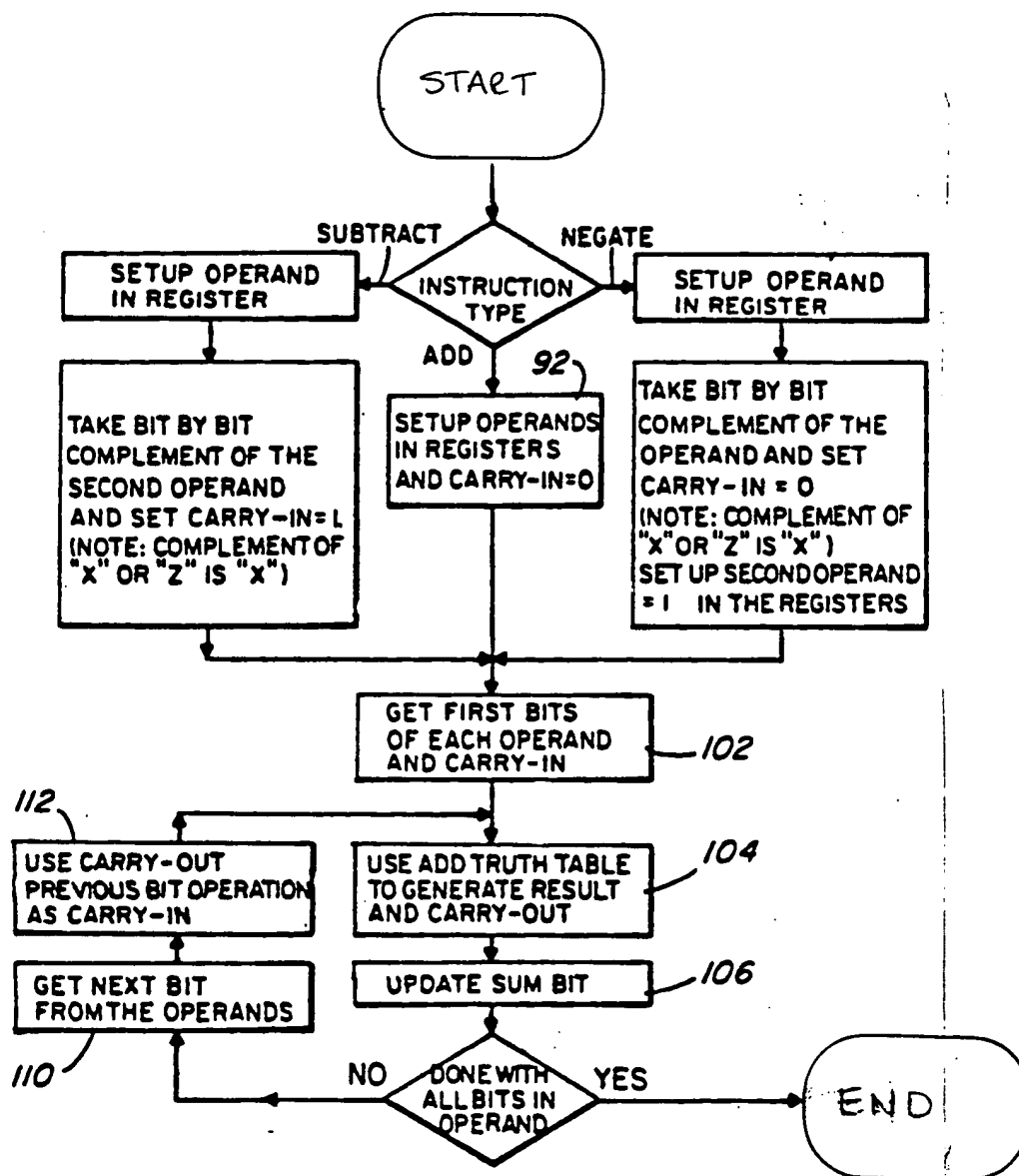


FIG. 5A

OPERAND 2	RESULT
0 1 X Z	0 1 X X
1 1 X X	1 0 X X
X X X X	X X X X
Z X X X	X X X X

OPERAND 1  
0  
1  
X  
Z

CIN = 0

OPERAND 2	CARRY-OUT
0 1 X Z	0 0 0 0
1 1 X X	0 1 X X
X X X X	0 X X X
Z X X X	0 X X X

OPERAND 1  
0  
1  
X  
Z

OPERAND 2	RESULT
0 1 X Z	1 0 X X
1 1 X X	0 1 X X
X X X X	X X X X
Z X X X	X X X X

OPERAND 1  
0  
1  
X  
Z

CIN = 1

OPERAND 2	CARRY-OUT
0 1 X Z	0 1 X X
1 1 X X	1 1 1 1
X X X X	X 1 X X
Z X X X	X 1 X X

OPERAND 1  
0  
1  
X  
Z

OPERAND 2	RESULT
0 1 X Z	X X X X
1 1 X X	X X X X
X X X X	X X X X
Z X X X	X X X X

OPERAND 1  
0  
1  
X  
Z

CIN = X

OPERAND 2	CARRY-OUT
0 1 X Z	0 X X X
1 1 X X	X 1 X X
X X X X	X X X X
Z X X X	X X X X

OPERAND 1  
0  
1  
X  
Z

FIG. 5B

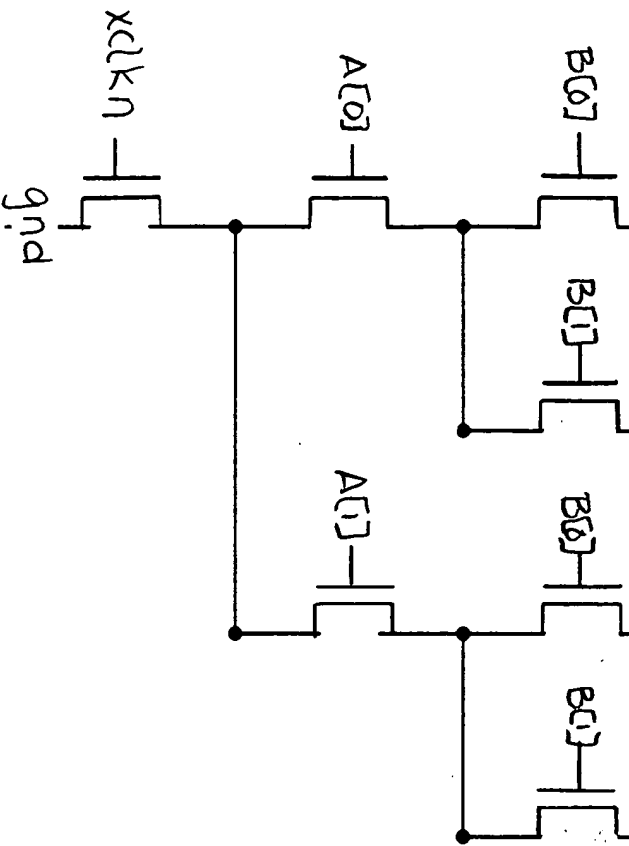
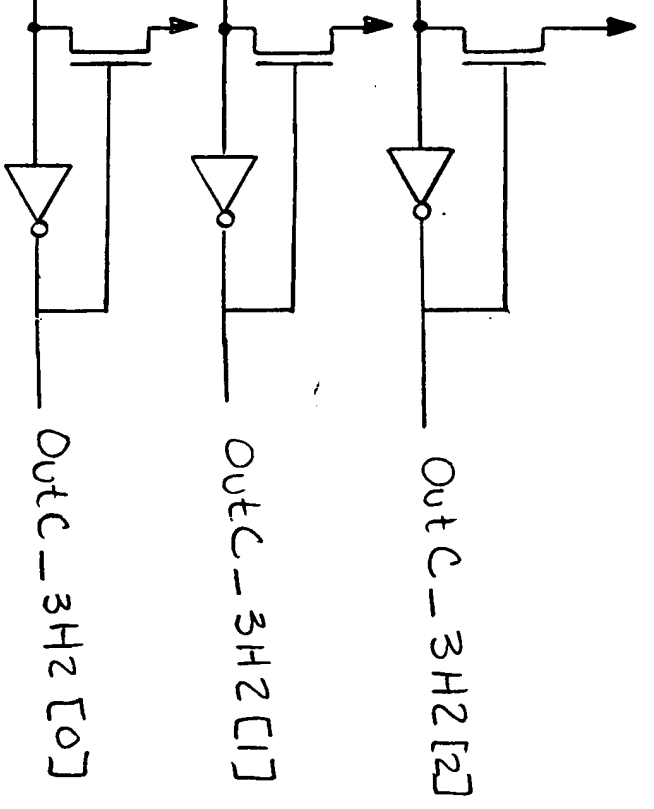
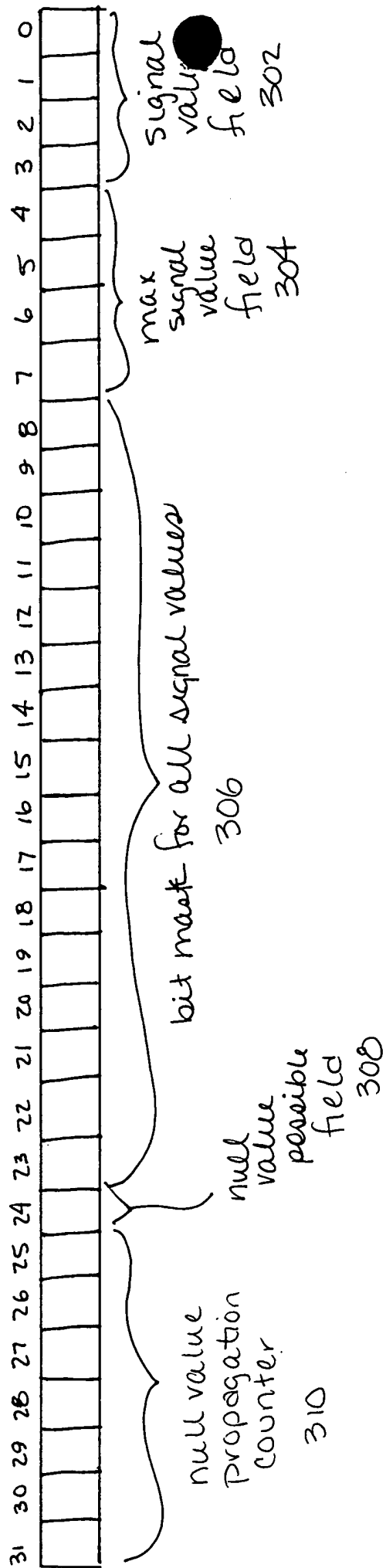


FIG. 6

$$\begin{aligned}
 A[0] &= inA\_2H2[0] \\
 A[1] &= inA\_2H2[1] \\
 B[0] &= inB\_2H2[0] \\
 B[1] &= inB\_2H2[1]
 \end{aligned}$$



300

FIG. 7